OHIO CULTIVATOR.

A Semi-Monthly Journal of Agriculture and Horticulture.

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OHIO CULTIVATOR.

A Semi-Monthly journal, devoted to the improvement of Agriculture, Horticulture, and the Mecanic Arts—and the promotion of domestic industry.

M. B. BATEHAM,
EDITOR AND PROPRIETOR.

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Address M. B. BATEHAM, Columbus, O.

Trumbull County Agricultural Society.

This Society was organized at a public meeting in Warren, on the 16th ult., by the adoption of a constitution, in accordance with the new law, and the election of the following officers for the ensuing year:

JOHN F. BEAVER, President.
GEO. HEZLEP, Vice President.
JACOB H. BALDWIN, Treasurer.
GEO. HARGOOD, Secretary.

Havilah Smith,
John Battles,
Major Churchill,
Cyrus Bosworth,
Joseph H. Wolcott, } Managers.

A committee of one in each township was appointed to circulate the constitution, and obtain members in their respective townships.

It is stated that much interest was manifested by all present in the Society, and confidence expressed that if successfully established, it would become an efficient agent in advancing the cause of agriculture and the farming interest throughout the county.

Lorain County Agricultural Society.

This Society has published its list of articles for premiums, and resolved to hold its annual Exhibition and Fair at Elyria, on the 30th day of September next.

The Society also resolved, that the ladies of the county be invited to manufacture useful and fancy articles, to be donated to the Society; and that they hold a Fair on the afternoon and evening of the day of the annual Exhibition; and that all citizens of the county be requested to bring choice specimens of fruits, flowers, or manufactured articles, and be offered for sale at the Ladies' Fair for the benefit of the Society.

Clark County Agricultural Society.

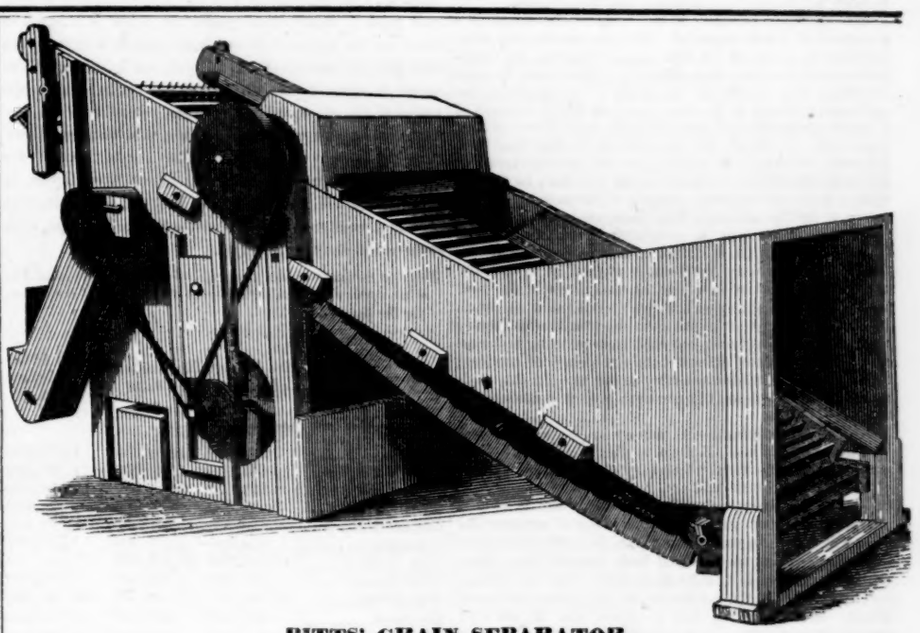
At a meeting of this Society, at Springfield, on the 16th ult., it was, on motion,

Resolved, That this Society, having had their attention called to the proceedings of a meeting of citizens of Clark and Madison, held at South Charleston, at which it was proposed to form a District Agricultural Society, including the above named county, cordially respond to the wishes of that meeting, and that —— be appointed a delegation to meet such other citizens of Clark and Madison as may assemble at Charleston, on the first Saturday in June, to proceed to the organization of a District Agricultural Society, under the late law upon the subject.

The following gentlemen were appointed said delegation:

Ira Page,	Wm. Whiteley,
A. Cowdy,	B. B. Browning,
A. Whitely,	S. G. Moler,
J. M. Gallagher,	Thos. P. Burnett.

'SWEENEY.'—W. A. inquires if there is any remedy for the disease called *sweeney*, affecting the shoulders of horses. We don't know any disease by that name, and find nothing respecting it in books in our possession.



PITTS' GRAIN SEPARATOR

It will be seen, by an advertisement on last page, that arrangements have been made for introducing this efficient labor-saving machine into the great wheat region of Ohio. We can speak from personal knowledge of the character of this machine, having seen it extensively in use in Western New York, where many hundreds of them have been manufactured and sold within a few years past, and have given universal satisfaction to purchasers. The SEPARATOR can be attached to any ordinary thrashing machines, but is commonly used with those of 4 or 6 horse power. It separates the grain from the straw and chaff in the most perfect manner, without waste, and elevates it into a bag or box, as may be desired, fit for market.

Editor's Rambles.

Brief Notes of a week's ride among the Farmers.

We have just returned from a pleasant, though too hasty, visit to a few of our friends, in the counties of Muskingum, Coshocton, Knox, and Licking. Our time and space, at present, will not permit us to notice much of what we saw and learned that was interesting to us, but we will hastily glance at a few places and things, which we think will afford instruction to our readers.

The Sheep Farm of Mr Jacob Stoolfire, near Hebron, in Licking county, was the first place at which we stopped. Mr Stoolfire's fine sheep and wool have before been noticed in our columns, and we had already formed a high opinion of him as a skilful shepherd and farmer; but we were not prepared to find quite as much evidence of superior skill and judgment, as met our view on a personal examination, which happened, too, very opportunely, just at sheep shearing. Mr Stoolfire's flock numbers, this year, 600 head, mostly of a fine grade of wool, and obtained from the celebrated Wells & Dickinson flock, and some of them bred in Pennsylvania. From the fineness and weight of the fleeces, and the form and vigor of his sheep, it is evident that Mr S. has bred and managed his flock with much care. His fleeces, from ewes and wethers, average, the present season, we should judge, not less than 3¼ to 3½ lbs. of washed wool. We weighed a number of remarkably fine quality, that weighed 4 lbs. and upwards. Indeed, we should like to see in this state a flock of sheep producing heavier fleeces, of as fine quality, or that are in any way more profitable than these.

One great secret of his success, we are confident, is *careful and abundant feeding* of his sheep. Indeed, we have never seen a flock in better order at shearing time. The only important defect that we noticed in his sheep operations, is a lack of care and neatness in shearing and putting up his wool. We do not mean to say that this was done in what would be called a *slovenly* manner, but that there is more room for improvement here than in any thing else that we could perceive; and as this is a point that materially affects the sale and price of his wool, as well as his reputation as a wool grower, we trust he will see the importance of a little improvement in this department.

Mr Stoolfire's farm embraces 135 acres of improved land, in addition to which he occasionally hires a little pasturage. Besides the 600 sheep, he keeps from 30 to 40 head of beef cattle through the summer. His land is of excellent quality, and so productive of grass, that he assured us he could keep in fine order 600 head of sheep through the year, and 20 head of cattle through the summer, on the 135 acres, besides raising the necessary grain and other crops, for the support of the family and teams. This appears to us a large calculation. Have any others of our readers done as much? He feeds a small quantity of Indian corn to his sheep in winter— not over one bushel to 250 head per day; gives them no shelter, but thinks open sheds would be an advantage in cold, wet storms.

Mr Charles Blandy, at Brownsville, is a gentleman of the English school. We spent an hour or two with him very pleasantly. He was formerly a merchant in that place, but now devotes his time to experimenting in agriculture, and the pleasant labors of his garden. His house and grounds exhibit evidences of his national taste for fruits and flowers; and this appears more striking to the passer by, from the contrast which is presented by the houses and grounds of his neighbors. In addition to the usual choice fruits of this country, we found in his garden a fine assortment of English gooseberries, filberts, &c., all thriving, aparently, as well as if in their native clime, and giving evidence of the skill as well as taste of the proprietor. Mr. Blandy uses a wash for the bark of his fruit trees, formed of a compound of ingredients, the preparation and use of which we would thank him to communicate for our readers. Its effects are evidently highly beneficial. We should also feel much obliged if he would, on some rainy day, favor us with an account of his experiments in the culture of Indian corn, showing the benefits of deep plowing, &c.

Raising fancy chickens, is another favorite amusement of our friend Blandy. He has a fine lot of Polands and Dorkings, with several other varieties. He keeps them in separate coops and yards, so as to avoid mixture, and will have a fine lot of chickens to dispose of in a month or two, to any who may desire them. His price for a single pair is $1, with some reduction where a number of pairs are taken. They can be sent by stage to any place along the national road, with a slight additional expense for boxes. Mr Blandy has had much experience in the

business of raising poultry; and we should be pleased if, at a leisure time, he would give us his views on the different breeds, &c. We will furnish 'pictures to match.'

Visit to 'Meadow Farm' — Rev. C. Springer's Orchard. — We next visited the farm and residence of Rev. C. Springer, five or six miles southeast of Zanesville. Unfortunately for us, Mr S. was absent from home. His situation is one of much beauty and fertility, and the improvements thereon are such as give evidence of a good share of skill and taste, on the part of the proprietor, in matters pertaining to agriculture and horticulture.

Mr. Springer, as many of our readers are aware, is a good deal of a fruit culturist. He sent us a lengthy communication, a month or two ago, advocating the somewhat novel doctrine that *pruning of fruit trees is more injurious than beneficial.* In proof of his positions, he refers particularly to his own orchard, which consists of a choice assortment of grafted apple trees, about twenty years old, on which the no-pruning system has been adopted, and which he states produce an abundance of very superior fruit—more abundant and fine, he thinks, than if the trees had been pruned. The orchard is certainly a thrifty one, and doubtless produces well, but from its appearance at the present time, we cannot possibly believe but that it would produce more an better fruit if the trees were moderately pruned, so as to allow at least a glimpse of sunshine to pass through the tops. In a climate as sunny as this, we do not think as much pruning should be practised as in the humid and cloudy atmosphere of England; but that *some* pruning is necessary for the greatest quantity and excellence of product, every day's observation plainly teaches us. In this matter, as in many others, the medium path is doubtless the true one.

Coal Bank Farming. — At Zanesville, we were invited by Messrs H. J. and J. L. Cox, to visit their farm (of 70 acres,) on the hills from which they dig coal, a little north of that town. These hills are, in many parts, so steep, as to be plowed with much difficulty. The soil is clayey and naturally poor, but by the application of manure and a crop of clover, several large fields, formerly deemed of little value except for the coal beds beneath them, have been brought to a high state of fertility. One of them is now covered with a most luxuriant and promising crop of wheat. When hauling coal to town, the Messrs Cox have their teams bring back manure for the land. This is composted by being deposited in large heaps, and mixed with leached ashes, &c. It is found that after being enriched and deeply plowed, these hills will continue highly productive for quite a number of years without extra labor; and the Messrs Cox informed us that, in a good season, they believed the crop of wheat would pay the extra expense the first year. They have discovered one great advantage of deep plowing that is not generaly understood by farmers, which is, its preventing the washing away of the soil on the hill sides by the rains. When plowed ten or twelve inches deep, as is practised by them, the water passes immediately into the soil and remains there to benefit the crop, instead of running off on the surface, and carrying the best of the soil along with it into the valleys and streams below.

Fancy chickens, of the Poland, Dorking, and half Pheasant varieties, are kept in considerable numbers by Mr J. L. Cox, at the coal bank farm; also, by his brother, E. T. Cox, two or three miles southwest of Zanesville. The latter gentleman is trying experiments in the cultivation of Cranberries, and a variety of other unusual productions of the farm and garden. We should be pleased to hear from him respecting the results occasionally.

Curculio, Cherry Trees, &c. — In visiting the garden of Gen. Goddard, at Zanesville, he pointed out to us a large plum tree, of the Bolmar variety, completely loaded with fruit, which was but slightly injured by the curculio. This tree, he informed us, had failed to bring any fruit to perfection for seven or eight years, and he had resolved to cut it down, but before doing so, he concluded to try, this season, the remedy recommended by David Thomas and others, namely, jarring off the curculios two or three times a day, for several weeks in spring, and catching them on a sheet when they fall. This, though somewhat laborious, has proved quite successful, and will be richly repaid by several bushels of delicious plums. Some large cherry trees, of the choicest kinds, in the General's garden, have prematurely ceased to grow or produce fair fruit, on account of being grafted on stocks of the *Morello* cherry. Every nurseryman who practices this species of imposition ought to be publicly exposed, as either grossly ignorant of his business, or else a knave. We have seen instances of even worse fraud than this, from nurseries of considerable repute, where the plum was worked on peach roots and the pear on apple—of course they all died in a few years.

(*Continued in our next.*)

SHEEP KILLED BY LIGHTNING.—The barn of C. S. Perkins, [Perkins & Brown,] near this village, was struck by lightning on the night of the 5th ult., and twelve of his valuable sheep were killed. Some of them were worth $40 a piece, and all belonged to his fine wooled flock. It will be very difficult to replace them, as they were those upon which much skill and expense had been expended in rearing and breeding for a particular purpose, and this is, after all, the chief loss.—*Akron Beacon.*

Report of the Commissioner of Patents.

Crops of the past Year.

This report, for a copy of which we are indebted to Hon. C. Delano, exceeds any of its predecessors in size, and from a hasty examination, we think it is equal to them in the value of its matter — which is high praise enough. It consists of 1184 pages, and is nearly all devoted to agricultural intelligence and discoveries — estimates of the crops of the past year, remarks on the season, accounts of remarkable crops, new articles of culture, the potato disease, &c. The greater part of the articles are taken from different agricultural papers, to which they are duly credited. We can only extract at present a portion of the tabular estimate of crops, with some accompanying remarks:

Tabular estimate of the amount of Wheat, Oats, and Indian corn, raised in the different States and Territories, for the year 1845.

State or Territory.	No. bushels of wheat.	No. bushels of oats.	No. of bushels of Indian corn.
Maine	502,000	1,564,000	1,912,000
New Hampshire	647,000	1,942,000	1,828,000
Massachusetts	241,000	1,856,000	3,798,000
Rhode Island	5,000	200,000	731,000
Connecticut	114,000	1,646,000	2,649,000
Vermont	854,000	3,593,000	1,728,000
New York	16,200,000	23,700,000	13,251,000
New Jersey	1,050,000	4,912,000	7,314,000
Pennsylvania	12,580,000	19,826,000	17,126,000
Delaware	440,000	828,000	2,713,000
Maryland	4,884,000	1,691,000	3,723,000
Virginia	11,885,000	8,888,000	27,272,000
North Carolina	1,969,000	2,673,000	14,887,000
South Carolina	1,168,000	700,000	8,184,000
Georgia	1,571,000	833,000	13,321,000
Alabama	980,000	1,527,000	16,451,000
Mississippi	378,000	1,189,000	2,167,000
Louisiana	.....	.....	8,360,000
Tennessee	8,340,000	8,625,000	7,265,000
Kentucky	4,769,000	13,091,000	54,625,000
Ohio	13,572,000	24,447,000	57,600,000
Indiana	7,044,000	13,902,000	30,625,000
Illinois	4,563,000	12,957,000	25,584,000
Missouri	1,525,000	5,466,000	15,625,000
Arkansas	2,427,000	436,000	8,251,000
Michigan	7,061,000	4,815,000	4,945,000
Florida	.....	8,000	733,000
Wisconsin Terri'y	971,000	1,200,000	672,000
Iowa Territory	793,000	681,000	2,028,000
D. of Columbia	15,000	12,000	35,000
Texas	.....	.....	.....
Total	106,548,000	163,208,000	417,899,000

REMARKS ON THE TABULAR ESTIMATE.

In presenting the foregoing tabular estimate, it may be proper, to prevent mistakes, to repeat what has been stated in the former reports of this office, that no claim is laid to complete accuracy. All that has been attempted, has been merely to furnish an approximation, which, although in particulars sometimes rising above, and at others falling short of the actual state of the crops, might still serve, in general, for want of better materials, the purpose of comparison, and form some basis for calculations, in gross, respecting the agricultural resources of our country. To hope to accomplish any thing beyond this, with the means at command at present, would be a vain undertaking. Yet it is believed that the grounds on which the estimate is made, with a readiness at all times to correct errors, and an increasing preparation of experience in the use of the materials, will aid essentially in giving more reliable accuracy. Those who will candidly review the history of the crops, as it has been collated from notices made on the spot, and mark the causes at work to affect them, it is presumed will admit, for the most part, the justness of our conclusions; and to such it is unnecessary to state the extreme difficulty of arriving at an estimate which will satisfy those who choose some easier method of decision. Various methods have been proposed for reaching the desired object; but, in the absence of an actual census, no better mode than the employment of similar data, yet more extensively gathered and perfected by comparisons, appears to us practicable.

Some writers in the public journals seem to place great reliance on the amount of wheat brought to the Atlantic ports, and claim that this is the truest test of the increase or decrease of the crop. While we admit that this is an important element of computation, and as such is ever regarded in our estimate, it is doubted, however, if this alone is sufficient. The comparative decrease or increase of the other crops in the place where such product is raised, may often exercise an important influence to modify such a calculation. If one product, on which reliance has been placed for feeding the stock, has been cut off, resort must be had to another; and the degree of such consumption may thus very essentially vary the surplus left for the market; so that, though the amount of wheat raised in the western states may be actually greater or less, as the case may be, the amount brought to the Atlantic ports may be less or greater, according to a variety of other circumstances, irrespective of production. The demand in the way of trade, therefore, is only one of the many things to be considered. The greater previous stock remaining; the greater ease of placing the surplus of any year in market; the kind of payment received; the ease and expense of preparation for use at any given period, with a variety of other circumstances, must tend not a little to modify the amount received at the nearest place of exit, or at the remoter markets. So that the amount passing any lines of transportation, or entered at any office, will not by itself give the correct data for an approximation to an accurate estimate.

In using the various elements on which estimates are made, reference must likewise be had to the ability, from experience or means of observation, of the informant, his freedom from bias, and the absence or presence of extraneous causes which may operate to influence his judgment. It is obvious, therefore, that it is no easy matter to sift out and discriminate the true from the false, and thus form, by a series of deductions, a result which may have some pretensions to be regarded as founded on correct principles of judgment. Such means, however, as are within our reach, have been resorted to, and, with all necessary deductions, they have been employed to secure, as far as practicable, a candid view of the whole state of the case.

The amount of materials collected during the past year, exceeds that of any former year; though we still have to regret, that, on account of no answers to some of the circulars for information, the means for estimate in some sections is less complete than it might otherwise have been. A greater number of the public journals and agricultural papers, both at home and abroad, have been carefully examined, and such information as they contained collated and arranged in such a manner as to form a history of the crops through the season. The advantage of this plan is apparent, as it enables any one to judge, from one period to another, of the causes influencing the staple crops of the country, and affords, in some degree, a criterion by which to arrive at the more correct conclusion as to the amount raised.

In consequence of a census of population in four states, we have been enabled to correct our table of estimated population. These are New York, Michigan, Illinois, and Georgia. In New York, directions were likewise given to the marshals to collect the amount of the principal crops raised during the preceding year. These statistics have been procured from the office of the Secretary of the State of New York, and have been made the basis of our estimate for the year 1845. The same has been done, so far as any such data could be obtained, in the case of the other states.

The disinclination of many to communicate the amount of the products of their industry on such occasions, induces the belief that such an estimate will oftener be found to fall below than to exceed the actual amount of the crops so raised. Allowing this cause to operate to some degree, it would tend to approximate our former estimate considerably nearer to the statistics reported on such official authority.

In most cases it has been deemed advisable to give only the round numbers, leaving the fractional parts. This cause sufficiently shows the comparative product, and is as likely as any other to be accurate.

The progress of agricultural knowledge is steadily onward. States are turning with deeper interest to providing means for encouraging the farmers and planters in their respective limits. Surveys of the soil and various products are set on foot; and thus, much valuable information is elicited. Men of science are devoting themselves to the illustration of the principles of agriculture, as a science founded on careful experiment. New journals are every year established, and numerous volumes published, designed to convey to the husbandman, planter, and grazier, the orchardist and the dairyman, the results of investigations at home and abroad. Agricultural societies and farmers' clubs are greatly on the increase; and the numbers who attend their exhibitions, and take part in their deliberations, shows the deeper interest which is every where awakened in securing the benefit of these auxilaries, to the correct and profitable arrangement and development of the agricultural industry of the country.

Some advances are likewise making towards the introduction of this science as a subject of common school education and instruction in primary schools, as well as in the establishing of institutions more expressly designed for this particular purpose. No subject is receiving more earnest attention, in all the various periodicals and vol-

umes adapted to the agricultural class, than is that of manures; and the applications of chemical and geological science to this object are daily becoming more important and useful.

New enterprise, too, has recently been directed towards the improvement of stock, by the importation and crossing of breeds, and particular care to note their adaptation to the different sections of the country.

Every year introduces, likewise, to the agriculturist, some additional implement, by which his labor is lessened, or better done; and, while he is thus saved somewhat of the sweat of his brow, he is likewise assured of greater profit from the fruits of his industry. There is, thus, mutual dependance as to the pursuits of the farmer and those of the artisan. Mechanical industry presents him with the results of her inventive genius. With these in hand, he forces from the earth her increase, and, by the blessing of a kind Providence, is enabled to pour out to the community around him a lavish of nature's bounties, such as no other country can so universally boast. In view of his own improved tools and means of culture, he may well wonder how his fathers, and himself, formerly, could have been satisfied with the ruder ones which have been so long in use. We are, however, but at the commencement of these better things.

The researches of each successive year, and the multiplied facilities added to the train of conveniencies enjoyed, authorize the belief that the advancement of agricultural industry is destined far to exceed any that has yet been seen.

There is no want of adaptation of soil, or of fertility, or of means of industry, or of bone and sinew of free yeomanry, who may enjoy the fruits of their own labor; and, as an increasing population spreads far and wide over the whole face of the land, its abundance, under the smiles of Heaven, will ever suffice for both the native born and the emigrant, who, from foreign shores, seeks an asylum from the oppression which starves him and grinds him to the dust.

Even the evils which attend the greater or less failure of some important crop, as in the present year has, to some extent, been the case with the potato crop, are not without their good effects; insomuch as they will call forth scientific investigation, observation, and practical industry, to determine and apply the remedy, and thus often throw new light on the true theory of germination or progress. More care will probably be taken in selecting seed, in cultivating the soil, and in storing the crop; new varieties may be secured, and the still greater failures, which might otherwise have taken place, thus be prevented. Some of these observations, in general, will receive yet fuller illustration in the future consideration of the specific crops as they come under our review.

We are not, too, without our resources even in the case of the more permanent unproductiveness of some particular crop. The history of our country, and the wide extent and variety of soil and climate, enable us to turn our attention from one thus failing to another, and in many cases new products may thus become introduced and acclimated among us. To any one who may live a half century hence, the comparison in this respect may be a striking one. Fields blooming with some plant now scarcely known, may then frequently meet the eye, and afford promise of a rich harvest to repay the enterprize and skill devoted to its culture; and the octogenarian of those days may possibly find, but few and far between, the patches of some fruit of the earth, which he was wont in his boyhood to see, frequently wide spread over his native soil.

As commerce and enterprise open to us the vast empire of China, and the interior of South America, it would not be surprising if there should be discovered there products well adapted to sections of our own country, but which are as yet unknown among us. It should, therefore, be an object to keep a lookout for every thing which may tend to benefit the agricultural industry of our country; and even if the boon is gained by the price of numerous fruitless experiments, yet success may often reward diligence and patient effort to accomplish the end.

By a reference to the report of the Commissioner of Public Lands, we learn that 1,754,763 acres have been sold during the past year. Now, although we can by no means assume that all of this, or even the greater portion of it, goes under cultivation at once, it still must be supposed that a part of it must add to the amount devoted to agricultural supply in the states where it is located; and this item deserves notice in forming our estimate of its products.

The same may be said with respect to the increased population from emigration. The number of emigrants from Great Britain and European countries generally, to the United States, is believed to have been greater during the past year than in the previous one, when it amounted to from 80 to 100,000. A portion of these, no doubt, engage in agricultural pursuits, and thus have some influence, not only on the consumption, but also the production of the crops.

A man who gets through the world without a kick, may rest assured that he is generally considered not worth minding.

Morrell's American Shepherd.

I make no pretensions to sheep husbandry; but I am looking to it at present, as one of the *ways* and *means;* and I suppose some notice of the above work may not be unacceptable. Experienced breeders would probably find it profitable to obtain the book; the novice, who is attempting to rear sheep on a large scale, could scarcely fail to be benefited. The history of the different breeds of sheep is pretty fully given; and an abstract of the experience, not only of Mr. Morrell, but of the most distinguished sheep growers in this and foreign countries.

The following principles seem to be maintained in the work under review:

1. That the different breeds, from *black* to snowy *white*, with huge *fat* or *lean* rumps, with *small* or *monstrous* tails, with *long* and *shaggy* locks, or with *short* and *silken* fleece, or coat of *hair*, and with *horns*, from two to six, or with none, all sprang from one original stock—such, probably, as Abel fed.

2. That the breeder has it in his power to counteract, to a considerable extent, the evil influences of climate, and govern to his advantage the quality of the fleece, the size and form of the animal, and the quality of the mutton.

3. That one of the most effective means, is to breed from such parents only as possess, in an eminent degree, the qualities desired.

4. That in breeding, pure blood is of great value, because, in cross-breeds there is a constant tendency for the inferior stock to reappear in the progeny; and especially is this true, until after the fourth and fifth generations.

5. That the sire has a decided influence on the *wool* and *form* of the progeny; and the mother, on the *internal* structure, *nervous* temperament, and the constitution.

6. That large size, round form, early maturity, and great propensity to fatten, are the qualities desirable in mutton sheep; but these are incompatible with a *fine* fleece and a *hardy* constitution, the two most important objects where the wool is the object.

7. That the same *keep* will produce an equal number of pounds of carcass, whether given to sheep of a small or large breed.

8. That the Merino and Saxon breeds, and especially the last, are not so prolific, nor so likely to raise their lambs, as the varieties with medium wool—such as the South Down and Cheviot.

9. That the natural ranges of the sheep were high and mountainous; therefore, from reason as well as experience, dry and hilly districts promote their health, vigor, and longevity.

10. That a cold climate tends to produce fine wool; and a hot climate a coarse; thus, in Africa, where man is *woolly*, sheep are *hairy*.

11. That a changeable climate produces unevenness in the fibre of wool, and an equable temperature, a fibre of equal size and strength; and hence, one argument in favor of sheltering sheep in our cold and changeable winters.

12. That shelters for sheep should be well aired, and so constructed as to leave the sheep at full liberty to remain under them or not, at pleasure.

13. That sheep need a diversity of food, in winter and summer; and so strong is this their *nature*, that they will winter better on straw, alternated with hay, than on hay alone; and especially, if the hay is made of one kind of grass only—as pure timothy, pure red-top, &c.

14. That sheep are, at all times, decidedly the better for green or succulent food; and hence the necessity, during the feeding season, at least once in a week, of pine, lemlock, or other brouse, or turnips, potatoes, beets, apples, or winter pasture; all, or as many of them as possible.

15. That grain is unnecessary in the production of fine wool.

16. That the finest and best wool is produced when the sheep is kept in good *store* order—neineither *fat* nor *poor;* and when sheep are made very fat at one time, and very poor at another, the wool has an uneven and brittle fibre.

17. That *regular* feeding is essential to the health and longevity of the animal, as well as the goodness of the wool; and this regularity should include stated hours to feed, and a fixed quantity for each meal.

18. That it is of the very first importance, that sheep be not permitted to loose flesh in the fall; before commencing to feed them, and to avoid this, the best hay should be given, as soon as the pastures are injured by frost.

19. That sheep should be kept in flocks not exceeding one hundred.

20. That in sowing grass seeds for sheep, whether intended for pasture or hay, several kinds should be put on the same ground; and among the cultivated grasses, timothy, herds grass, and blue grass, hold the first rank for pastures; and clover does well mixed with either of these, for hay.

21. That corn, in the quantity of half a bushel to one hundred sheep per day, is very useful to ewes, for three or four weeks before lambing.

22. That after lambing, oats is better than corn; because it contains a larger amount of the principles necessary to form milk; the bran and shorts of wheat, rye, and buchwheat, are also good; also oats and corn, ground and mixed with bran and shorts.

23. That bucks should be let to the ewes, from the middle of November to the middle of December, so that the young animal may bear the impress of winter, and have, in consequence, a hardy constitution, and a fine and heavy fleece.

24. That bucks, according to their age and sturdiness, may serve from 25 to 100 ewes; and should have good keeping during the service, and for some weeks before and after.

25. That to prevent fighting, but one buck should be in the same flock of ewes at the same time.

26. That ewes, lambs, and wethers, should be separated and kept in distinct flocks; and these should be again subdivided, according to their health and strength.

27. That on lands of an average good quality, and in good condition, one hundred sheep may be kept on thirty acres, winter and summer.

28. That highly calcarious districts, tend to make the fibre of wool brittle and harsh; while their free-stone soils produce the toughest, most pliable, and most desirable article.

So far as I am able to judge, the foregoing embraces the prominent doctrines of the book, except the medical department. If the above shall be acceptable to the readers of the Cultivator, and the present bad weather continues, a review of the diseases of sheep and their treatment, as given by Mr. Morrell, may be attempted. It is hoped that experienced sheep growers will, through the Cultivator, inform us whether they believe the above principles are sound or not. Among the acquaintances of the writer, are several persons who could contribute much information on sheep husbandry, and I would be glad to see essays from their pens. May I not name Dr. Holliway, and J. Holliway and sons, of Belmont; and Judge Hallock, of Steubenville?

On looking over, I see that I have neglected to state, that the system of breeding *in* and *in*, is condemned by the author and all his correspondents, as tending to destroy the constiutions of the progeny. It may also be remarked, that Mr. Ewing, of Pa., is of opinion that winter pasture, or fields in which blue grass is permitted to grow in summer to be eaten off in winter, is the cheapest and best green food for sheep, where lands are cheap and abundant.

E. Nichols.

Walhonding, O., 1846.

Number of Sheep for a small Farm.

M. B. Bateham, Esq. — *Dear Sir:* As we were about to write to you with the petitions, and our subscriptions, I will make a few observations, as you invited your subscribers to do, in answer to the inquiry in regard to the number of sheep, that could be kept on one hundred acres of land:

As this depends so much on the character of the farm, and the breed of sheep, the inquirer will have to decide in a manner himself. If the land is sown into grass and clover, I should calculate on being able to cut hay sufficient, and to pasture ten head of South Downs per acre, or perhaps as many Merino or Saxony, as they are much small-

er; but six or seven may be enough of the Bakewell or large breed, as their constitution is not equal to the South Downs.

There should be change of pasture, so that the grass should have time to grow, and the sheep should not be taken off fodder, till the grass has a good start, although the three breed are valuable for different situations, yet if the farm is new, and brush, briars and weeds prevail, the South Downs are by far best calculated to subdue and clear the pasture of such things.

I regret to add that the dogs have been committing their depredations in every direction lately. I have lost a valuable Merino buck, and a neighbor has lost half his flock. I have a Bakewell buck lamb, which I consider equal to any in the State, but his sire was killed. I hope the legislature will do their duty.

Yours respectfully,

GEORGE SMITH.

Cary's Academy, O., Jan. 1846.

The Locusts---Fruit Trees.

Mr. EDITOR—In a late number of the Wheeling Times, there is an article which you are requested to copy, giving directions to 'save young apple trees from the ravages of the locusts.'* I think it is calculated to alarm those who have young fruit trees more than there is any necessity for. In 1829, the last period of these strange insects, I was a resident in a city, and made no memoranda respecting them, further than that they were out in full on the 6th of June, and that they had come out of the ground, and cast their shells during the preceding week. I recollect perfectly, that I walked into the country almost every day, to see what injury they had done. Not a tree or bush of any kind was killed. The only vestiges of the insects, were the incisions they had made in the small branches of every tree, where they had deposited their eggs. What a benevolent arrangement of Providence, that these insects are so constituted as to require no food! If, like grasshoppers, they required nutriment, they are so numerous, that not a leaf nor blade of grass would be left.

I have a great number of fruit trees in my orchard, of all kinds, and of all sizes, from an inch to a foot in diameter; but do not feel much apprehension that they will be seriously injured; and I do not intend to shield them in any way. They will be somewhat disfigured, and a little retarded in their growth perhaps, but will recover in a year or two. I have likewise a nursery, for which I feel more concerned than for the orchard.

I, a short time since, addressed a letter to Sam'l Woods, an old and intelligent nurseryman, of Smithfield, Ohio, making some inquiries as to what injury the locusts would do my nursery, how to protect it, &c. I send you his answer; it may be useful to others as well as myself:

'5th month, 11th, 1846.

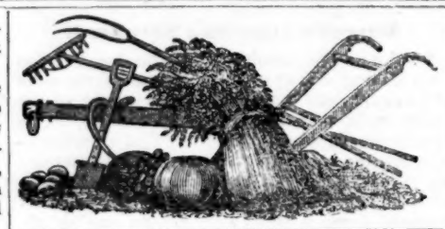
'ESTEEMED FRIEND—Thee may look for the locusts in a few days, if the weather is favorable for them; but they will not do any mischief for a month or six weeks. It is a good plan to take a rope, with a man at each end, and draw it slowly over the trees in the nursery, that the locusts may fly before you to the woods, if there is any near. It is towards the close of their existence, that they bore the trees. I think they last about forty days. As soon as they disappear, I intend to cut off the limbs that are most wounded, and occasionally the main branch, then a new shoot will start. Trees in orchards are likely to suffer the most; they may be saved by laying the body with straw or hay; fresh mown grass, a little withered, will answer a good purpose. I do not recollect that they injured the fruit crop the last time they were here. We have a great appearance of fruit. 'With respect,

'SAMUEL WOOD.'

I am told the locusts are now coming out of the ground in some places. I think they are nearly two weeks earlier than in 1829. C.

Marshall Co., Va., May 16, 1846.

*We have not seen the article in the Times referred to.—ED. O. C.



OHIO CULTIVATOR.

COLUMBUS, OHIO, JUNE 1, 184 6.

TO CORRESPONDENTS AND READERS.—Having just returned from an eight days' tour in the country, several letters and communications have not yet been attended to, and our exchange papers remain mostly unopened. The same cause (together with the enlisting of several of the printers to fight the Mexicans) has delayed the issuing of this number of our paper for a day or two.

We intend to leave town again in a day or two, on a trip to the counties of Harrison, Jefferson and Belmont, including a small portion of Virginia. Being a great sheep region, we are anxious to go there during shearing time. Shall return in about 10 days. A competent person will attend to business letters in our absence. Letters on private business, designed for our own eye, (especially if from *ladies*,) should be marked '*private*' on the back, near the seal.

The art of BUDDING will be illustrated in our next. A chapter on Horses will also appear.

Hon. C. DELANO will accept our thanks for a copy of the valuable report of the Commissioners of Patents, and for several other documents.

'D. L.'—A correspondent asks what has become of friend Lapham? We should like to inquire whether he has got through mending the *breeches* of that canal yet?

The Weather and the Crops.

The weather has been quite dry, and remarkably warm, during the past two weeks, in this portion of the State, and rain is much needed for the young corn and other spring crops. In our recent tour through good portions of the counties of Flanklin, Licking, Muskingum, Coshocton, and Knox, we found the wheat crop looking very promising, with the exception of some late sown fields in Muskingum, and a few in Licking, that are injured by the *fly*. Indeed, from what we have seen and heard of the appearances in different parts of the State, we do not think there has ever been, on the first of June, a better prospect of an abundant wheat harvest, throughout Ohio, than at the present time. The dry weather is highly favorable as a means of preventing *rust*, though there is still time enough for that scourge to do immense mischief. We hope, if the evil appears, our readers will watch its progress and developments closely, and give us a host of facts on the subject. Those of our friends, especially, who have made experiments this season in relation to this matter, should be on the alert to observe the results.

Grass and oats also appear well, the former cannot fail of being a good crop, though rain is needed in most places to secure a heavy yield. Corn is mostly quite backward, excepting such as was planted very early, (before the rains.) Some farmers complain of much injury from cut worms, as well as by drought.

Our own 'little farm' looks very dry, and some thousands of young seedling and grafted fruit trees are apparently dying. Can't help it, but will supply their places next year. [Thunder showers this day, June 1st.]

☞ Our thanks are due to Messrs. Ellwanger & Barry, the enterprising proprietors of the Mt. Hope Nursery, Rochester, N. Y., for half a dozen choice fruit trees, and a number of fine roses, &c., sent us for the little farm. Among these are four pear trees which their letter state are from a lot of 1,000 received by them this spring, direct from Belgium, in fine order, and all cultivated on quince stocks, to promote early bearing. They have also imported a fine lot of other choice fruits, as plums, cherries, &c., and a collection of new roses. We advise any of our readers who may be passing through Rochester, to visit this establishment, and the beautiful Cemetery adjoining.

The Locusts.

These strange insects have made their appearance, as had been predicted, in the eastern portions of this State, and we believe in portions of Virginia and Pennsylvania. We found them in immense numbers in the counties of Muskingum and Coshocton, and the eastern portions of Knox and Licking. On the national road, their western limit we found was a mile or two this side of Hebron; they also disappear a few miles this side of Granville; none being found in this (Franklin) county. They began to appear about the 20th of May, and continued to increase for a week or ten days. Swine, poultry, and some kinds of birds, have feasted bountifully on them, but without much apparent effect in lessening their numbers. They have not yet commenced depositing their eggs, but may be expected to do so in a week or two, when the effects will soon be visible on the young branches of trees in orchards and forests, causing the leaves thereon to turn brown and the twigs to break off by the winds.

We find many farmers and others laboring under the mistaken apprehension that these insects will devastate their gardens and orchards by eating up the foliage; but this, as we have before stated, is a mistake, as they *do not eat any thing at all* during their brief existence in the winged state—their life being sustained by the abundance of fatty juices which they contain on rising from the earth. The mischief they do is only in puncturing the branches of trees for depositing their eggs; but this is often very injurious, especially to fruit trees.

In passing along the beautiful valley of the Walhonding, a short distance above the residence of our friend, Eli Nichols, we observed an old farmer engaged in tying rye straw around the bodies and branches of young apple trees in a recently planted orchard. We found him an intelligent Virginian, named RILEY, a subscriber of ours, and one of the earliest settlers of that region. He informed us that he adopted this method of protecting his trees from the locusts. He had witnessed their appearance on his premises on two former occasions—in 1812 and 1829, now again in 1846—each period of exactly 17 years between. That, on a former occasion, they nearly destroyed a young orchard for him, and he was determined to 'head them' in their mischief this time. His orchard is surrounded on three sides by forests, and we saw no locusts about his trees, nor do we imagine they would trouble them much—especially if he were to go around once or twice a day and disturb the tops of his apple trees with a stick, which would cause them to fly to the woods. Let others take the hint, and inform us of the result.

Splendid Strawberries.

The garden of Mr. John Burr, near this city, presents a sight at the present time worth going miles to see. Besides his beds of Hovey's, Hudson's, and other standard varieties of Strawberries, he has a fine display of Burr's Seedling, (raised from seed by his father in Connecticut,) and about *fifty varieties of new seedlings*, raised by himself, just fairly in bearing, and some of them promising to eclipse all other varieties known. The Horticultural Society have appointed a committee to report on them.

Mr G. W. Penny, of Newark, has a magnificent bed of strawberries, called there the Downton variety. We never saw plants produce as many berries of as large size as these; whether it is owing to soil or other circumstances than the excellence of the kind, we cannot say. At our request, Mr. Penny sent a few of the berries for the examination of our Horticultural Society. They were much admired by the members present on Saturday evening, but were thought to be nearly or quite identical with Hovey's. They do not agree with the discriptions of the Downton. Will friend Penny or Sprague inform us whether their history can be traced with certainty!

LADIES' DEPARTMENT.

Pictures of Rural Life, No. 2.

NOON.

How like the noon of life this glorious noon
Of Nature — calm and spiritually bright —
Where, 'neath the cooling shade, with rich delight,
The happy *peasant* muses o'er the scene,
To judge his toil from what the past has been,
And gather strength for what must yet be done!

Thus in life's sober noon, beneath the shade
Of long experience and a judgment tried,
Unroused by passion and tempestuous pride,
We meditate the path that should be trod
To better man and please a higher God,—
And RISE to DO just like a giant renew'd!
The gathered strength is not employed in vain,—
We strive, and life's sublimest heights we gain!

ROBERT E. H. LEVERING.

CIRCLEVILLE, O., May, 1846.

Raising Plants from Cuttings.

Many of our fair friends, we doubt not, will be especially gratified, at the present time, by our giving a brief chapter of instructions in the art of propagating plants by cuttings. Nor will this subject be devoid of interest to our horticultural readers of the other sex, inasmuch as the same general rules will apply to nearly all kinds of plants, trees, shrub, &c., that are increased by cuttings.

We copy (with abridgements) from Mrs. Loudon's admirable work, entitled Gardening for Ladies.

The branches most suitable for making cuttings, are those which grow nearest to the ground, especially those which recline on it, as they have always the greatest tendency to throw out roots; and even the erect side-shoots are considered preferable to those which grow at the upper part of the plant. The best season for making cuttings is summer, when the sap is in full motion, as the returning sap is then most likely to form the ring or mass of accumulated matter from which the new roots are to spring. It has been already mentioned, under the head of layers, that it is from the joints only that roots can be expected to grow; and, accordingly, in making cuttings, the shoot is divided just below a joint; and it is generally reckoned best to choose a joint at the point of junction between the young wood and the wood of the previous season. The cut should be quite smooth; as, if the shoot be bruised, the returning sap will not be able to reach the joint in a sufficient quantity the desired end. Some plants are much more difficult to strike as cuttings than others; but some, such as the willow, the currant, the vine, &c., will throw out roots, not only from the joints, but from every part of the stem. These plants do not require so much care as to cutting off at a joint, as they will throw out roots from whatever part may be put into the ground, but even they succeed best when properly prepared.

Cutting of Geranium and Chincse or Monthly Rose, prepared for planting. (The leaves of the rose cutting are represented as shortened simply to save space in the engraving — they should be left of full size.

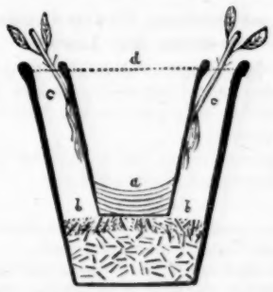
The cutting being taken off, and the division at the joint being made perfectly smooth, several of the leaves should be cut off close to the stem, with a sharp knife; and a hole being made in the soil, the cutting should be put in, and the earth pressed close to its extremity, or it will never strike out roots. When these are made in a pot, the cutting will much more readily strike (as gardeners call its throwing out shoots) if it rest against the side of the pot, or even against the bottom.

Cuttings may be struck in the open ground, and in the common soil, without any covering; but these cuttings are only of those plants which strike readily. When struck in pots, it is customary to fill the pots half, or entirely full of white sand, to prevent the stalk of the cutting from having too much moisture round it. Those cuttings which are most liable to be injured by moisture, such as heaths, &c., are struck in pots filled entirely with sand; but as there is no nourishment to be derived from sand, most cuttings do best with their lower end in earth, and with only sand about an inch or two inches deep, at the top of the pot, to keep the stem dry, and to prevent it from rotting. The cutting, when prepared, should be buried to about the second joint, and two or three joints with leaves should be left above the soil. A few leaves

Cutting of the Lemon-Scented Verbena and Myrtle, prepared for planting — (no leaves removed, except from the lower point.)

to elaborate the sap in the case of herbaceous plants, or evergreen trees and shrubs, are essential; for I have known very promising cuttings of petunias, which had been some weeks in the ground, and which had thrown out abundance of roots, entirely destroyed by some snails having eaten all the leaves; and I am told that the case is by no means an uncommon one. Cuttings of delicate plants are generally covered with a bell-glass [or a large sized tumbler] pressed closely on the earth, to keep a regular degree of moisture round the plants, and to prevent too rapid an evaporation; but some cuttings, when thus treated, are very apt to damp off, and require to have the glass taken off occasionally, and wiped. Cuttings of greenhouse plants, I have been told by practical gardeners, strike best when put into the pots as thickly as possible; and as they are generally well watered when first put into the ground, if covered with a close glass, they will very seldom require any watering afterwards.

Some cuttings which are difficult to strike, are directed to have bottom heat. This means, that the pots in which they are planted are to be plunged into a hot-bed, that the stimulus afforded by the heat may induce the cuttings to throw out roots. Care must, however, be taken, that the hot-bed is not too hot, and in that case it sometimes burns the tender roots of the cuttings. Mr Alexander Forsyth, a very intelligent gardener, recommends the following plan: Take a wide-mouthed forty-eight size pot, and put some potsherds at the bottom, in the usual manner. Then take a wide-mouthed small sixty, and put a piece of clay in the bottom, to stop the hole, and then place it inside the other, so that the tops of both pots may be on a level. The space between the pots must then be filled in with sand or other soil, and the cuttings inserted as shown in the annexed cut. The inner



pot should be filled with water, and the outer pot may then be plunged in the ground, or into a hot-bed, and covered with a glass, or not, according to the nature of the cutting. In the engraving, *a* shows the clay stopping of the inner pot; *b*, the drainage of the potsherds; *c*, the sand, or other soil, in which the cuttings are inserted; and *d*, the water in the inner pot.

MECHANICAL DEPARTMENT.

On the Mechanic Powers.

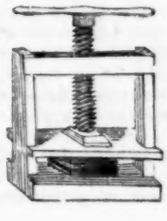
From Lardner's Popular Lectures on Science and Art: copied by the permission of the publishers.

Concluded from page 78.

THE INCLINED PLANE, WEDGE AND SCREW.

The screw is generally used in cases where severe pressure is to be excited through small spaces; it is therefore

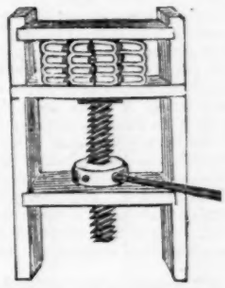
Fig. 11.



the agent in most presses. In fig 11, the nut is fixed, and by turning the lever, which passes through the head of the screw, a pressure is excited upon any substance placed upon the plate immediately under the end of the screw. In fig. 12, the screw is incapable of revolving, but is capable of advancing in the direction of its length. On the other hand, the nut is capable of revolving, but does not advance in the direction of the screw. When the nut is turned by means of the screw inserted in it, the screw advances in the direction of its length, and urges the board which is attached to it upward, so as to press any substance placed between it and the fixed board above.

In cases where liquids or juices are to be expressed from solid bodies, the screw is the agent generally employed. It is also used in coining, where the impression

Fig. 12.



of a die is to be made upon a piece of metal, and in the same way in producing the impression of a seal upon wax or other substance adapted to receive it. When soft and light materials, such as cotton, are to be reduced to a convenient bulk for transportation, the screw is used to compress them, and they are thus reduced into hard dense masses. In printing, formerly, the paper was urged by a severe and sudden pressure upon the types by the means of a screw.

As the mechanical power of the screw depends upon the relative magnitude of the circumference through which the power revolves, and the distance between the threads, it is evident, that, to inerease the efficacy of the machine, we must either increase the length of the lever by which the power acts, or diminish the magnitude of the thread. Although there is no limit in theory to the increase of the mechanical efficacy by these means, yet practical inconvenience arises which effectually prevents that increase being carried beyond a certain extent. If the lever by which the power acts be increased, the same difficulty arises as was already explained in the wheel and axle: the space through which the power should act would be so unwieldy, that its application would become impracticable. If, on the other hand, the power of the machine be increased by diminishing the size of the thread the stsength of the thread will be so diminished, that a slight resistance will tear it from the cylinder. The cases in which it is necessary to increase the power of the machine being those in which the greatest resistances are to be overcome, the object will evidently be defeated if the means chosen to increase that power deprive the machine of the strength which is necessary to sustain the force to which it is to be submitted.

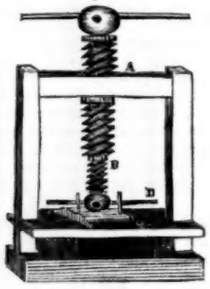
These inconveniences are removed by a contrivance of Mr Hunter, which, while it gives to the machine all the requisite strength and compactness, allows it to have an almost unlimited degree of mechanical efficacy.

This contrivance consists in the use of two screws, the threads of which may have any strength and magnitude, but which have a very small difference of breadth. While the working point is urged forward by that which has the greater thread, it is drawn back by that which has the less; so that, during each revolution of the screw, instead of being advanced through a space equal to the magnitude of either of the threads, it moves through a space equal to their difference. The mechanical power of such a machine will be the same as that of a single screw, having a thread whose magnitude is equal to the difference of the magnitudes of the two threads just mentioned.

Thus, without inconveniently increasing the sweep of the power, on the one hand, or, on the other, diminishing the thread until the necessary strength is lost, the machine will acquire an efficacy, limited by nothing but the smallness of the difference between the two threads.

This principle was first applied in the manner represented in fig. 13. A is the greater thread, playing in the fixed nut; B is the lesser thread, cut upon a smaller cylinder, and playing in a concave screw, cut within the greater cylinder. During every revolution of the screw, the cylinder A descends through a space equal to the distance between its threads. At the same time, the smaller cylinder B ascends through a space equal to the distance between the threads cut upon it: the effect is, that the board D descends through a space equal to the difference between the threads upon A and the threads upon B, and the machine has a power proportionate to the smallness of this difference.

Fig. 13.



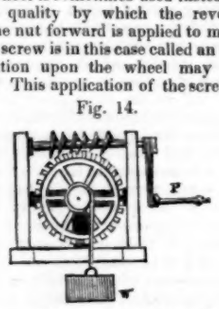
Thus, suppose the screw A has twenty threads in an inch, while the screw B has twenty one: during one revolution, the screw A will descend through a space equal to the twentieth part of an inch. If, during this motion, the screw B did not turn within A, the board D would be advanced through the twentieth of an inch; but because the hollow screw within A turns upon B, the screw B will, relatively to A, be raised in one revolution through a space equal to the twenty first part of an inch. Thus, while the board D is depressed through the twentieth of an inch by the screw A, it is raised through the twenty-first of an inch by screw B. It is therefore on the whole, depressed through a space equal to the excess of the twentieth of an inch above the twenty-first of an inch — that is, through the four hundred and twentieth of an inch.

The power of this machine will, therefore, be expressed by the number of times the four hundred and twentieth of an inch is contained in the circumference through which the power moves.

In the practical application of this principle at present, the arrangement is somewhat different. The two threads are usually cut on different parts of the same cylinder. — If nuts be supposed to be placed upon these, which are capable of moving in the direction of the length, but not of revolving, it is evident that by turning the screw once round, each nut will be advanced through a space equal to the breadth of the respective threads. By this means the two nuts will either approach each other, or mutually recede, according to the direction in which the screw is turned, through a space equal to the difference of the breadth of the threads, and they will exert a force either in compressing or extending any substance placed between them, proportionate to the smallness of that difference.

A toothed wheel is sometimes used instead of a nut, so that the same quality by which the revolution of the screw urges the nut forward is applied to make the wheel revolve. The screw is in this case called an endless screw, because its action upon the wheel may be continued without limit. This application of the screw is represen-

Fig. 14.



ted in fig. 14. P is the winch to which the power is applied; and its effect at the circumference of the wheel is estimated in the same manner as the effect of the screw upon the nut. This effect is to be considered as a power acting upon the circumference of the wheel; and its proportion to the weight or resistance is to be calculated in the same manner as the proportion of the power to the weight in the wheel and axle.

We have hitherto considered the screw as an engine used to overcome great resistances. It is also eminently useful in several departments of experimental science, for the measurement of very minute motions and spaces, the magnitude of which could scarcely be ascertained by any other means. The very slow motion which may be imparted to the end of a screw, by a very considerable motion in the power, renders it peculiarly well adapted for this purpose. To explain the manner in which it is applied — suppose a screw to be so cut as to have fifty threads in an inch, each revolution of the screw will advance its point through the fiftieth part of an inch. Now, suppose the head of the screw to be a circle, whose diameter is an inch, the circumference of the head will be something more than three inches; this may be easily divided into a hundred equal parts distinctly visible. If a fixed index be presented to this graduated circumference, the hundredth part of a revolution of the screw may be observed by noting the passage of one division of the head under the index. Since one entire revolution of the head moves the point through the fiftieth of an inch, one division will correspond to the five thousandth of an inch. In order to observe the motion of the point of the screw in this case, a fine wire is attached to it, which is carried across the field of view of a powerful microscope, by which the motion is so magnified as to be distinctly perceptible.

A screw used for such purposes is called a *micrometer screw*. Such an apparatus is usually attached to the limbs of graduated instruments, for the purposes of astronomical and other observation. Without the aid of this apparatus, no observation could be taken with greater accuracy than the amount of the smallest division upon the limb. Thus, if an instrument for measuring angles were divided into small arches of one minute, and an angle were observed which brought the index of the instrument to some point between two divisions, we could only conclude that the observed angle must consist of a certain number of degrees and minutes, together with an additional number of seconds, which would be unknown, inasmuch as there would be no means of ascertaining the fraction of a minute between the index and the adjacent division of the instrument. But if a screw be provided, the point of which moves through a space equal to one division of the instrument,s with sixty revolution of the head, and the head itself be divided into one hundred equal parts, each complete revolution of the screw will correspond to the sixtieth part of a minute, or to one second, and each division on the head of the screw will correspond to the hundredth part of a second. The index being attached to this screw, let the head be turned until the index be moved from its observed position to the adjacent division of the limb. The number of complete revolutions of the screw necessary to accomplish this will be the number of seconds; and the number of parts of a revolution over the complete number of revolutions will be the hundredth parts of a second necessary to be added to the degrees and minutes primarily observed.

It is not, however, only to angular instruments that the micrometer screw is applicable; any spaces whatever may be measured by it. An instance of its mechanical application may be mentioned in a steel-yard, an instrument for ascertaining the amount of weights by a given weight, sliding on a long graduated arm of a lever. The distance from the fulcrum, at which this weight counterpoise the weight to be ascertained, serves as a measure to the amount of that weight. When the sliding weight happens to be placed between two divisions of the arm, a micrometer screw is used to ascertain the fraction of the division.

Hunter's screw, already described, seems to be well adapted to micrometical purposes; since the motion of the point may be rendered indefinitely slow without requiring an exquisitely fine thread, such as, in the single screw, would in this case be necessary.

(THE END.)

Report on Raising Grain Crops. — Letter from Dr. Locke.

Report of the committee appointed by the *Franklin (Clermont co.) Agricultural and Horticultural Society*, to report on the best method of raising grains.

Your committee on the cultivation of grains, respectfully submit the following

REPORT:

The most profitable crops produced in this part of Ohio, are Corn, Wheat, and Oats.

It is the opinion of your committee that a system of rotation in crops is beneficial, and should be generally adopted.

The fact has been established beyond a doubt, that a succession of crops of the same kind of grain not only impoverishes the soil, but reduces the grain both in quantity and in quality. All farms should be so arranged that they would yield one of the above named grains each year in succession without diminishing the fertility of the soil. We recommend the following rotation: Oats and red clover in stalk ground, corn in wheat stubble, and wheat in clover pasture. By following this rotation, in taking off each crop, the soil is prepared for that which is to follow.

In preparing ground for wheat, if the land is inclined to be wet, it should be thrown up in ridges from one to two rods wide. The ground when rough should be harrowed before sowing, and once or twice afterwards. The time for sowing wheat should be from the 5th to the 20th of September. We would recommend a top dressing of compost manure for wheat, to consist of lime one-third, and stable manure two-thirds, to be applied in the fall or winter. Good practical farmers recommend charcoal as an excellent manure for wheat, to be applied to the ground before plowing.

It is also recommended that seed wheat should stand until it is very ripe before cutting, as the grain comes nearer to perfection, and contains more of the glutinous matter, which, when sown, shoots forth stronger, and is not apt to be struck with rust or blight.

CORN.

We consider the corn crop equal to any other made in the United States, and by far the most important made in this State. Under these circumstances, any improvement in planting or circulating this valuable grain must be interesting to all.

We believe, by a judicial use of the plow and other good management, this crop may be greatly improved. All plants derive their nourishment from the air, water and soil, and the corn must have a full supply of air and moisture to affect the full development of its growth. The soil to do its part must be rich, and if not naturally fertile should be well manured and cultivated.

In preparing ground for corn, it should be plowed as early in the spring as the weather will permit. If it be flat, and inclined to be wet, the subsoil plow should be used. Too much pains cannot be taken in selecting seed corn. It is said, by good authority, that seed corn steeped in a solution of saltpetre is entirely freed from the depredations of insects—one pound of it is sufficient for eight gallons of water. The corn should be steeped from one to three days. As soon as the corn is up, the plow or harrow should be used in pulverizing the soil between the rows. By porosity of soil, air is admitted, and a larger quantity of organic and inorganic food is afforded the plant.

OATS.

Next in order oats demands the attention of the farmer. As this is one of the greatest staples of the west, too much care cannot be bestowed upon its cultivation. We recommend the sowing of this grain as early in the spring as the weather will permit. If the ground be of a warm and dry nature, oats should be sown, and then harrowed, and if it be of a cold or sour nature—disposed to be sod and baked—the ground should be plowed. Every farmer should ascertain what species of oats will yield the greatest profit upon his soil, and should, by experiments, determine what measures are best adapted to the vegetation of each particular grain. If his ground require manuring, he should know, by actual experiment, whether it needs compost, potashf salt, or lime.

GEO. J. NICHOLS,
CHARLES ROBB,
WILLIAM COOK, } *Committee.*

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Editors of the Clermont Courier:

GENTLEMEN: — At a late meeting of the '*Franklin Agricultural and Horticultural Society*,' of this vicinity, I had the honor to present the following letter from Professor LOCKE, to the Society, in reply to one I had written him in pursuance of a resolution of the Association soliciting an address from him. By a resolve of the society, I was requested to furnish a copy for publication.

Though it was not, perhaps, expected that it would be thus given to the public, yet I do not feel at liberty to withhold it.

JAMES FERGUSON.

Monroe tp., Clermont co., April 3, 1846.

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WASHINGTON CITY, *April* 3, 1846.

DEAR SIR: — Your esteemed favor of the 23d ultimo was not received until I was just leaving Cincinnati for this place, too late for a reply while there.

Please inform the Franklin Agricultural and Horticultural Society that I am by no means insensible to the honor which tney have done me in requesting me to deliver an address to their association. I would have complied with the utmost cheerfulness, but I had previously engaged my services in the Magnetical Department of the Coast Survey of the United States. My labors have not been without their reward in Ohio, but I have sacrificed so much in furnishing the labratory of the Medical College of Ohio, and in the promotion of general science, that I find myself compelled to serve for pay, in order to provide for my family.

In my youthful days, I aided my parents in the cultivation of a farm, and learned to guide the plow, to wield the scythe, the hoe, and the axe, and am so far a practical farmer. I cannot therefore but feel a strong sympathy and lively interest in agricultural pursuits, which preserves the epithet conferred upon them of being, at the same time, the 'most noble and independent of all occupations.'

The agriculture of Ohio needs improvement. The riches of the forest mould are exhausted, and now a little art and industry are to be used in supplying their place. The *laboring* farmer and the *laboring* man of science, (not the theoretic drone,) must combine their experience and take council together, how they can raise two stalks of wheat or 'two blades of grass' where now but one grows. Chemistry, botany, minerology, and geology, are all concerned, and intimately connected with agriculture. I have often regretted that practical farmers but too often undervalue the sciences and scientific men. But all this arises from their confounding science and mere pretensions, scientific men and mere drones, who theorise without facts. Were the sciences and scientific men what some persons esteem them to be, their opinion is well founded.

The man of science who alone is entitled to the respect of practical men, such as farmers and mechanics, must be a practical man himself; must have a set of tools not inferior in cost to a farm and its tools together; must labor as assiduously as a farmer, and must really 'earn his bread with the sweat of his brow.'

On reviewing what I have scribbled above, I find the sentiment needs to be expressed in a different form, and would correctly stand thus: ***It is to be regretted that those who profess to be scientific men, do not, all of them, make themselves more worthy of the confidence of practical farmers and mechanics.*** * * * *

Very respectfully, yours,

JOHN LOCKE.

Letter of a Traveler with Inquiries.

MR EDITOR: Since I forwarded to you some notes of travel last summer, I have had occasion to retrace my steps over nearly the same section of our great State, which afforded topics for my previous letters. But somewhat different trains of r flection have been awakened. One thing I could but remark as I passed along: that farmers have been, in various neighborhoods through this country, greatly influenced by the reading of agricultural journals. Some are conscious of the good they derive from such sources — others manfully contend for their originality in the schemes of improved husbandry which they have adopted. Let these have the credit, if they desire. The *benefit* of enlarged and corrected views on the subject of agriculture, will inevitably be extended in widening gyrations around every intelligent farmer, till our nation becomes as noted for the excellence of its husbandry, as for its civil and political institutions.

AN INSTANCE.—I found frequent reference to a Mr ———, as a farmer of eminence. As I approached his farm, I recognized some of the evidences of *paper* farming. For several miles before reaching his house, I observed that the corn, in some fields, was planted in a particular manner, in a kind of semi-drill. The rows were four feet apart, one way, east and west; the hills, the other way, were two feet apart, two stalks in a hill. I was informed that the said Mr ——— had raised 112 bushels of corn to the acre, by planting in this manner. A still nearer approach to his house afforded indications of *covered drains*. My spirits began to brighten with the hope of seeing a Cultivator, either from Albany or Columbus. I found, on my arrival, that some seven or eight years ago, the proprietor of the farm had taken the Cultivator or Genesee Farmer, (he could not recollect which;) that there were some good things in it, but that the paper advised some things which he disapproved, and that, finally, he concluded to stop his paper and 'farm it' in his own way. Now, it was easy for me to see that he had been greatly benefited by the reading of that paper, and that his neighbors had been benefited by *his* improvement in husbandry. By the way, let me ask if the wide spaces between his rows ought not to extend north and south, instead of east and west? *His* reason for the latter method was, that the ground might be shaded so as to keep down the weeds.

OTHER INSTANCES of improvement from agricultural papers, I observed in the vicinity of Granville, (which, let me say, is one of the most enlightened towns in the state.) I saw several fields from which, I am confident, more than one hundred bushels to the acre have been gathered, judging from the size and frequency of the stalks (?) and size of the ear. I have no doubt that agricultural papers are taken in that vicinity; and probably there is in that region a flourishing agricultural society.

ANOTHER EVIDENCE of agricultural reading.—Around some barns, not well located, (built probably before the paper was taken,) I saw large piles of compost, and other decided efforts made to prevent the washing away of manure. Farther along, I saw that barns and pig-pens were built over or on the edge of steep ravines, and no effort made to remedy the defect. Your paper would be of use to such farmers. It would tell them, that farmers who suffer their manure to be *all* wasted, by allowing it to be washed into creeks and rivers, or deposited in 'woods pastures,' lose *all* the net profits of their farms, or 'mighty near it.'

INQUIRIES. — I wish you would afford some information in regard to lime kilns. Large portions of Athens county are abundantly supplied with lime stone of good quality. Still farmers are suffering their lands to become exhausted, and are too rapidly making encroachments upon the woodlands, to make room for their uncertain and fitful business of tobacco raising, and preparing their old fields for that remarkable production called 'last gasp,' to which I alluded last summer.

1. Can you give any instruction as to the formation of kilns, and the method of burning lime with wood, as coal is not always accessible?

2. Describe the best method of burning with coal, mentioning the size of the fragments of stone best for burning, with wood or coal.

3. What ought to be the cost, per hundred bushels, of burning lime, where the stone is of easy access, lying thickly on the surface of the ground, in convenient size for loading into stone boats, and indeed so abundant as to need no transportation by 'hauling,' and where wood is furnished, *standing*, free of cost, and in abundance?

4. Please give a word of instruction as to the quantity, per acre, to be used, and the mode of applying lime to land. 'I pause for a reply.'

A TRAVELER.

Ohio, Dec., 1845.

From Lardner's Popular Lectures on Science and Art.

Lunar Influences.

On a former occasion, [see O. Cult., vol. 1, p. 150,] I examined the question respecting the supposed influence of the moon upon the weather, and demonstrated that so far as actual observation has hitherto afforded grounds for reasoning, there is no discoverable correspondence between the lunar changes and the vicissitudes of rain and drought which can justify or in any degree countenance the popular belief, so generally entertained, as to dependance of change of weather upon the changes of the moon.

But meteorological phenomena are not the only effects imputed to our satellite; that body, like comets, is made responsible for a vast variety of interferences with organized nature. The circulation of the juices of vegetables, the qualities of grain, the fate of the vintage, are all laid to its account; and timber must be felled, the harvest cut down and gathered in, and the juice of the grape expressed, at times and under circumstances regulated by the aspects of the moon, if excellence be hoped for in these products of the soil.

According to popular belief, our satellite also presides over human maladies; and the phenomena of the sick chamber are governed by the lunar phases; nay, the very marrow of our bones, and the weight of our bodies, suffer increase or diminution by its influence. Nor is its imputed power confined to physical or organic effects; it notoriously governs mental derangement.

If these opinions respecting lunar influence were limited to particular countries, they would be less entitled to serious consideration; but it is a curious fact that many of them prevail and have prevailed in quarters of the earth, so distant and unconnected, that it is difficult to imagine the same error to have proceeded from the same source. At all events, the extent of their prevalence alone renders them a fit subject for serious investigation; and I propose at present to lay before you some of the principal facts and arguments bearing on these points, for the collection of which we are mainly indebted to the industry and research of M. Arago.

A large volume would be necessary to analyze all the popular opinions which refer to the supposed lunar influences. We shall confine ourselves, therefore, to the principal of them, and shortly examine how far they can be reconciled with the established principles of astronomy and physics.

The Red Moon. — It is believed generally, especially in the neighborhood of Paris, that in certain months of the year, the moon exerts a great influence upon the phenomena of vegetation. Gardeners give the name of *Red Moon* to that moon which is full between the middle of April and the close of May. According to them, the light of the moon, at that season, exercises an injurious influence upon the young shoots of plants. They say that when the sky is clear, the leaves and buds exposed to the lunar light redden and are killed as if by frost, at a time when the thermometer, exposed to the atmosphere, stands at many degrees above the freezing point. They say, also, that if a clouded sky intercepts the moon's light, it prevents these injurious consequences to the plants, although the circumstances of temperature are the same in both cases.

Any person who is acquainted with the beautiful theory of dew, which we owe to Dr. Wells, will find no difficulty in accounting for these effects erroneously imputed to the moon. If the heavens be clear and unclouded, all substances on the surface of the earth, which are strong and powerful radiators of heat, lose temperature by radiation, while the unclouded sky returns no heat to them to restore what they have lost. Such bodies, therefore, under these circumstances, become colder than the surrounding air, and may even, if they be liquid, be frozen. Ice, in fact, is produced, in warm climates, by similar means. But if the firmament be enveloped in clouds, the clouds having the quality of radiating heat, will restore by their radiation, to substances upon the surface of the earth, as much heat as such substances lose by radiation; the temperature, therefore, of such bodies will be maintained at a point equal to that of the air surrounding them.

Now the leaves and flowers of plants are strong and powerful radiators of heat. When the sky is clear, they therefore lose temperature, and may be frozen. If, on the other hand, the sky be clouded, their temperature is maintained for the reasons above stated.

The moon, therefore, has no connexion whatever with this effect; and it is certain that plants would suffer, under the same circumstances, whether the moon is above or below the horizon. It equally is quite true that, if the moon be above the horizon, the plants cannot suffer unless it be visible, because a *clear sky* is indispensable, as much to the production of the injury to the plants as to the visibility of the moon; and, on the other hand, the same clouds which veil the moon and intercept her light, give back to the plants that warmth which prevents the injury here adverted to. The popular opinion is therefore right as to the *effect*, but wrong as to the *cause;* and its error will be at once discovered by showing that, on a clear night, when the moon is new, and, therefore, not visible, the plants may nevertheless suffer.

Time for felling Timber. — There is an opinion generally entertained that timber should be felled only during the decline of the moon; for if it be cut down during its increase, it will not be of a good or durable quality. This impression prevails in various countries. It is acted upon in England, and is made the ground of legislation in France. The forest laws of the latter country interdict the cutting of timber during the increase of the moon. M. Auguste de Saint Hilaire states, that he found the same opinion prevalent in Brazil. Signor Francisco Pinto, an eminent agriculturist in the province of Espirito Santo, assured him as the result of his experience, that the wood which was not felled at the full of the moon was immediately attacked by worms and very soon rotted.

In the extensive forests of Germany, the same opinion is entertained and acted upon with the most undoubting confidence in its truth. Sauer, a superintendent of some of these districts, assigns what he believes to be its physical cause. According to him, the increase of the moon causes the sap to ascend in the timber, and, on the other hand, the decrease of the moon causes its descent. If the timber, therefore, be cut during the decrease of the moon, it will be cut in a dry state, the sap having retired, and the wood, therefore, will be compact, solid, and durable; but if it be cut during the increase of the moon, it will be felled with the sap in it, and will therefore be more spongy, more easily attacked by worms, more difficult to season, and more readily split and warped by changes of temperature.

Admitting for a moment the reality of this supposition concerning the motion of the sap, it would follow that the proper time for felling the timber would be the new moon, that being the epoch at which the descent of the sap would have been made, and the ascent not yet com-

menced. But can there be imagined, in the whole range of natural science, a physical relation more extraordinary and unaccountable than this supposed correspondence between the movement of the sap and the phases of the moon? Assuredly theory affords not the slightest countenance to such a supposition. But let us inquire as to the fact whether it be really the case that the quality of timber depends upon the state of the moon at the time it is felled.

M. Duhamel Monceau, a celebrated French agriculturist, has made direct and positive experiments, for the purpose of testing this question, and has clearly and conclusively shown that the qualities of timber felled in different parts of the lunar month are the same. M. Duhamel felled a great many trees of the same age, growing from the same soil, and exposed to the same aspect, and never found any difference in the quality of the timber when he compared those which were felled in the decline of the moon with those which were felled during its increase; in general they have afforded timber of the same quality. He adds, however, that by a circumstance, which was doubtless fortuitous, a slight difference was manifested in favor of timber which had been felled between the new and full moon—contrary to popular opinion.

Supposed Lunar Influence on Vegetables.—It is an aphorism, received by all gardeners and agriculturists in Europe, that vegetables, plants, and trees, which are expected to flourish and grow with vigor, should be planted, grafted, and pruned, during the increase of the moon. This opinion is altogether erroneous. The increase or decrease of the moon has no appreciable influence on the phenomena of vegetation; and the experiments and observations of several French agriculturists, and especially of M. Duhamel du Monceau, (already alluded to,) have clearly established this.

Montanari has attempted, like M. Sauer, to assign the physical cause for this imaginary effect. During the day, he says, the solar heat augments the quantity of sap which circulates in plants, by increasing the magnitude of the tube through which the sap moves, while the cold of the night produces the opposite effect, by contracting these tubes. Now, at the moment of sunset, if the moon be increasing, it will be above the horizon, and the warmth of its light would prolong the circulation of the sap; but, during its decline, it will not rise for a considerable time after sunset, and the plants will be suddenly exposed to the unmitigated cold of the night, by which a sudden contraction of leaves and tubes will be produced, and the circulation of the sap as suddenly obstructed.

If we admit the lunar rays to possess any sensible calorific power, this reasoning might be allowed; but it will have very little force when it is considered that the extreme change of temperature which can be produced by the lunar light, does not amount to the thousandth part of a degree of the thermometer.

It is a curious circumstance that this erroneous prejudice prevails on the American continent. M. Auguste de Saint Hiliare states that, in Brazil, cultivators plant during the decline of the moon all vegetables whose roots are used as food, and, on the contrary, they plant during the increasing moon the sugar-cane, maize, rice, beans, &c., and those which bear the food upon their stocks and branches. Experiments, however, were made and reported by M. de Chauvalon, at Martinique, on vegetables of both kinds, planted at different times in the lunar month, and no appreciable difference in their qualities was discovered.

There are some traces of a principle in the rule adopted by the South American agronomes, according to which they treat the two classes of plants, distinguished by the production of fruit on their roots or on their branches, differently; but there are none in the European aphorisms. The directions of Pliny are still more specific: he prescribes the time of the full moon for sowing beans, and that of the new moon for lentils. 'Truly,' says M. Arago, 'we have need of a robust faith to admit, without proof, that the moon, at the distance of 240,000 miles, shall, in one position, act advantageously upon the vegetation of beans, and that in the opposite position, and at the same distance, she shall be propitious to lentils.'

Supposed Lunar Influence on Grain.—Pliny states, that if we would collect grain for the purpose of immediate sale, we should do so at the full of the moon, because, during the moon's increase, the grain augments remarkably in magnitude; but if we would collect the grain to preserve it, we should choose the new moon, or the decline of the moon.

So far as it is consistent with observation that more rain fall during the increase of the moon than during its decline, there may be some reason for this maxim; but Pliny, or those from whom we receive the maxim, can barely have credit for grounds so rational: besides which, the difference in the quantity of rain which falls during the two periods is too insignificant to produce the effects here adverted to.

Supposed Lunar Influence on Wine-making.—It is a maxim of wine-growers, that wine which has been made in two moons is never of a good quality, and cannot be clear. Toaldo, the celebrated Italian meteorologist, whose mind appears to have been predisposed for the reception of lunar prejudice, attempts to justify this maxim. 'The vinous fermentation,' he says, 'can only be carried on in two moons when it begins immediately before the new moon; and, consequently, that this being a time when the enlightened side of the moon is turned for the most part from the earth, our atmosphere is deprived of the heat of the lunar rays, that, therefore, the temperature of the air is lowered, and the fermentation is less active.'

To this we need only answer, that the moon's rays do not affect the temperature of the air to the extent of one thousandth part of a degree of the thermometer, and that the difference of temperatures of any two neighboring places, in which the process of making the wine of the same soil and vintage might be conducted, must be a thousand times greater at any given moment of time, and yet no one ever imagines that such a circumstance can affect the quality of the wine.

It is a maxim of Italian wine merchants, that wine ought never to be transferred from one vessel to another in the month of January or March, unless in the decline of the moon, under penalty of seeing it spoiled.

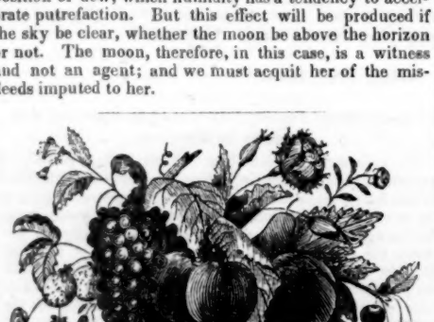
Toaldo has not favored us with any physical reason for this maxim; but it is remarkable that Pliny, on the authority of Hyginus, recommends precisely the opposite course. We may presume that, from such contrary rules, it may reasonably be inferred that the moon has no influence whatever in this case.

Among the maxims of Pliny we find that grapes should be dried by night at new moon, and by day at full moon.

When the moon is new it is below the horizon during the night, and above it during the day, and when it is full it is above the horizon during the night, and below it during the day. The maxim of Pliny, therefore, is equivalent to a condition requiring that the grapes should be dried when the moon is below the horizon. It is evident that the absence of the moon is not required in this case, in consequence of any effect which her light might produce if she were present; for when the moon is new she affords no light, even when in the firmament, the illuminated side being turned from the earth. If the maxim be founded upon any reason, it must, therefore, either be on some influence which the moon is supposed to produce when present, independent of her light (the absence of which influence is desired,) or it may be that she may be supposed to transmit some effect through the solid mass of the earth, when on the other side of it, which she is incapable of producing without its intervention. The maxim is probably as absurd and groundless as the other effects imputed to the moon. * * * *

Supposed Lunar Influence on Putrefaction.—Pliny and Plutarch have transmitted it as a maxim, that the light of the moon facilitates the putrefaction of animal substances, and covers them with moisture. The same opinion prevails in the West Indies and in South America. An impression is prevalent, also, that certain kinds of fruit exposed to moonlight lose their flavor and become soft and flabby; and that if a wounded mule be exposed to the light of the moon during the night, the wound will become irritated, and frequently become incurable.

Such effects, if real, may be explained upon the same principles as those by which we have already explained the effects imputed to the red moon. Animal substances exposed to a clear sky at night, are liable to receive a deposition of dew, which humidity has a tendency to accelerate putrefaction. But this effect will be produced if the sky be clear, whether the moon be above the horizon or not. The moon, therefore, in this case, is a witness and not an agent; and we must acquit her of the misdeeds imputed to her.



THE COLUMBUS HORTICULTURAL SOCIETY will meet at Ambos' Saloon, on Tuesday evening, June 2d, for the inspection of strawberries, and any other rare fruits or flowers that may be brought in. We are requested by the President also to state, that meetings will be held at the same place, *every Saturday evening* during fruit season.

'IN ADVANCE OF THE MAIL.'—We have been sweltering, for the last few days, under as fair a sample of the August dog-day's heat as the veriest salamander could desire. It is the general belief that the warm weather has come on *by express*, as it is some two months ahead of the almanac.—*Zanesville Courier, May 29th.*

The Wool Markets.

What is the price of wool? is at the present time the first question on the minds and lips of a large number of our subscribers.—We cannot answer it very definitely, but will give such items as we find in the few papers that venture to say any thing on the subject:

WOOL.—It seems to be the prevailing impression, among those engaged in the trade, as well as consumers, that the prices of wool will rule somewhat lower this year than last, probably from 10 to 15 per cent., and as the subject is one of importance the production of wool having become of great value to the country, we transfer to our columns the annexed remarks of a correspondent of the Baltimore Patriot, said to be connected with a large wool house in that city, merely remarking, that the views are supported by the trade generally. He estimates the amount of wool to be clipped in the United States this year, at 140,000,000 lbs., of which 110,000,000 lbs. will be required for home consumption, leaving a surplus for export of 30,000,000 lbs. The average value, if based on half-blood merino, is about 25c. ℔ lb., or $36,666,66, at the present ruling prices.—The increased production is greater than the increase in the home demand; and the day is not distant, when the amount for export will exceed the amount consumed at home. The amount experimented upon by shippers in 1845, was about 1,200,000 lbs., resulting in a loss to the operators of more than 10 per cent.; thus showing that our wool-growers must, in future, accede to a decline in price of 12@15 per cent., for the export price will as surely fix its value at home, as it does the price of cotton, flour, &c. We beg leave to remark, that the burs and filth often sent to market with wool, deteriorate its value below its real worth; more attention must be given to the whole business of breeding, washing, assorting, &c., and then an advance in price may be confidently looked for, that will fully compensate the grower for his extra exertion.—The general impression now is, that the following prices will be those offered by manufacturers and shippers, for the new clip, viz: For the coarse fleece wash, 18@20c.; for ¼ to ⅜ blood merino, 21@24c.; for ½ to full blood, 25@27c.; for prime Saxony, 27@30c.; extra prime lots, extra price; Ohio tub wash, 20@22c.; and pulled, 20@25c. per lb., according to quality and condition.—*Pennsylvanian.*

THE WOOL MARKET has been quite active for the last week.—The prices rule lower than last year, on account of the large clip expected this year. We quote common wool at 16@18c. ℔ lb; ¼ to ⅜ blood, 19@22; ½ to full blood, 23@26. Not much fine wool has arrived as yet. The prices paid are fully up to the quotations in Pittsburgh, Detroit and Cleveland.—*Akron Beacon.*

New York and Boston papers show nothing yet doing in the wool trade.

ENGLAND.—The Livespool Times, of May 5th, says: There has been considerably more business done in foreign wools during the latter part of last month than at any period since the commencement of the year, which, it is to be hoped, may continue, as consumers are very light in stock. On the 7th and 8th inst., there will be a large quantity offered by auction, which will draw a large number of buyers to this market. Of American, there is little held here.

THE MARKETS.

CINCINNATI, *May* 30.—Flour has declined to 2,87 @ 3,00 ℔ bbl.; Wheat, 57 @ 60 ℔ bu.; Corn, 27 @ 30; Oats, 23 @ 25. Rye, 50 @ 53; Barley 60 @ 65 cts. ℔ bu. Pork remains dull; mess, 9,00 @ 9,50, prime 7,00 @ 7,50 ℔ bbl. Lard. No. 1, kegs and bbls, 5¾ @ 6 cts. ℔ lb. Butter for packing, 7 @ 9 cts. Cheese for shipping, 6¼ cts. ℔ lb. Wool, the Chronicle says, continues to come very slowly; we notice the sales of several small lots, amounting in all to 1500@2000 lbs, at quotations, viz: Com. to ¼ blood, 16@18c.; ¼ blood, 21 c.; ⅜ blood, 23c.; full blood, 25.

NEW YORK, *May* 29.—Flour is dull, at 4,37½ @ 4,50; Wheat for shipment, 1,00; Corn for do., 65 @ 68 cts. wt.; Oats 32 cts. No change in provisions.

COLUMBUS PRODUCE MARKET.

[MARKET, TUESDAYS, THURSDAYS AND SATURDAYS.]

Corrected for the Ohio Cultivator, June 1.

GRAIN.				POULTRY.			
Wheat, full wt., bu.,	60	a		Turkeys, each,	37	a	50
Indian corn,	22	a	23	Geese, "		a	
Oats,	16	a		Ducks, "	8	a	10
PROVISIONS.				Chickens, "	8	a	10
Flour retail, bbl.,	3,12	a	3,25	SUNDRIES.			
" 100 lbs.	2,00	a		Apples, bu.		a	
" Buckwheat,	2,00	a		" dried,	1,50	a	1,75
Indian meal, bu.	25	a		Peaches, dried,	2,00	a	2,50
Hominy, qnart,	3	a	4	Potatoes	20	a	25
Beef, hd. qr.				Hay, ton,	5,00	a	
" 100 lbs.,	3,00	a	3,50	Wood, hard, cord,	1,25	a	1,50
" fore qr.,	2,00	a	2,50	Salt, bbl.,	1,75	a	1,87
Pork, mess, bbl.	9,50	a	9,75	SEEDS.			
" prime "	7,50	a		Clover, bu.,	4,25	a	4,50
Hams, country, lb.,	6	a		Timothy,	3,00	a	3,50
" city, cured,	7	a	8	Flax,	75	a	81
Lard, lb., ret.,	6½	a		ASHES,			
" in kgs. or bls.	6	a		Pot, 100 lbs.,	2,75	a	3,00
Butter, best rolls,	10	a	12½	Pearl,	3,50	a	3,75
" common	9	a	10	Scorched salts,	2,50	a	
" in kegs,	7	a	8				
Cheese,	6½	a					
Eggs, dozen,	5	a	6				
Maple sugar, lb.	5		6				
" molasses, gal,	30						
Honey comb, lb.	10	a	12½				
" strained	12½	a	14				

IMPORTANT TO FARMERS.

PITTS' PATENT GRAIN SEPARATOR.—Manufactured by H. D. JAMESON, Massillon, Ohio.

THIS MACHINE is PORTABLE, only requiring about 30 minutes to put up for use, in the field or barn. It thrashes, carries off the straw, fans [cleans] the grain in the most perfect manner, and deposites it in a bag or box, ready for market, all at one operation—thus effecting a great saving of hands in attendance; and thrashing and cleaning from 200 to 500 bushels per day, with great ease to all concerned. The machines are simple, strong, and durable in their construction, and not liable to get out of order—often thrashing and cleaning from ten to fifteen thousand bushels without repair.

June 1, 1846.—3t.

SWEET POTATOES.

A FEW thousand sweet potato plants; also a choice selection of Garden Seeds raised the past season, to be had on application to the subscriber, north-east corner of Seventh and Broad Streets.

LEWIS JENKINS.

Columbus, O., May 1, 1846.